

### **REMARKS**

Claims 2, 4, 8, and 10 are objected to because of several informalities. Applicants have amended the claims to address the Examiner's concerns.

Claims 1-12 are rejected under 35 USC §103 as being unpatentable over Ido et al., U.S. 5,570,439.

The Examiner's rejection is respectfully traversed.

Independent claim 1 has now been amended to recite a magneto-optical device that includes a waveguide structure having at least two cladding regions and core region. The cladding regions and core region comprise semiconductor alloy materials. Either the at least two cladding regions or said core region is doped with ferromagnetic materials so as to increase the magneto-optical activity of the device.

Independent claim 7 has now been amended to recite a method of forming a magneto-optical device. The method includes forming a waveguide structure that includes at least two cladding regions and core region. The cladding regions and core region comprise semiconductor alloy materials. Also, the method includes doping either the at least two cladding regions or said core region is doped with ferromagnetic materials so as to increase the magneto-optical activity of the device.

Ido et al. '439 describes an optical signal that is incident on a semiconductor optical waveguide with a grating and is reflected or transmitted therethrough to thereby perform dispersion compensation.

Claims 1 and 7 recite a waveguide structure having at least two cladding regions and core region, and the cladding regions and core region comprise semiconductor alloy materials. In

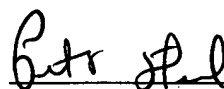
contrast, Ido et al. '439 describes an n-InGaAsP lower guide layer 16, an InGaAs/InP multi-quantum well layer 15, a p-InGaAsP upper guide layer 14, and a p-InP clad layer 3 having. Part of the clad layer was subjected to etching and was then buried with a Fe doped InP 13. Note Ido et al. '439 only has one cladding region 13 exposed to semiconductor alloy materials. The other cladding region 3 is not exposed to semiconductor alloy materials. Therefore, Ido et al. '439 does not render obvious claims 1 and 7.

As to claims 2-6 and 8-12, they are dependent on claims 1 and 7, respectively. Therefore, claims 2-6 and 8-12 are also allowable for the same reasons argued with respect to claims 1 and 7.

In view of the above amendments and for all the reasons set forth above, the Examiner is respectfully requested to reconsider and withdraw the objections and rejections made under 35 U.S.C. §103. Accordingly, an early indication of allowability is earnestly solicited.

If the Examiner has any questions regarding matters pending in this application, please feel free to contact the undersigned below.

Respectfully submitted,



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